REMARKS

Reconsideration and withdrawal of the restriction requirement and election of species are respectfully requested in view of the remarks herewith.

I. STATUS OF THE CLAIMS AND FORMAL MATTERS

Claims 1-85 are now pending. New claims 74-85 have been added, without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents.

No new matter is added.

It is submitted that these claims, as originally presented and amended herein, are in full compliance with the requirements of 35 U.S.C. 112. The amendment to the claims and the remarks made herein are not made for the purpose of patentability within the meaning of 35 U.S.C. §§101, 102, 103 or 112.

II. RESPONSE TO THE RESTRICTION REQUIREMENT

The July 29, 2002 Office Action called for restriction from among the following:

Group I	Claims 1, 2, 4, 8-11 and 16-58, drawn to isolated nucleic acid sequences, and vectors and cells containing them, classified in class 536, subclass 23.1;
Group II	Claim 3, drawn to an amino acid sequence, classified in class 530, subclass 300;
Group III	Claim 5-7, drawn to antibodies, classified in class 530, subclass 387.1;
Group IV	Claims 12-15, drawn to pharmaceutical compositions selected from amino acid sequences, antibodies, and nucleic acid sequences, classified in class 530, 530, and 536, subclasses 300 387.1 and 23.1, respectively;
Group V	Claims 59, 63 and 64, drawn to methods for detecting a variant nucleic acid sequence, classified in class 435, subclass 6;
Group VI	Claim 60, drawn to methods of determining the level of a variant nucleic acid sequence, classified in class 435, subclass 6;
Group VII	Claims 61 and 62, drawn to methods of determining a ratio between a variant level and its original sequence level, classified in class 435, subclass 6;

Group VIII Claim 65, drawn to detecting a variant amino acid sequence, classified in class 435, subclass 7.1.

Additionally, an election of species was required to either a single amino acid sequence or to a single nucleotide sequence to coincide with the Group elected above, or with respect to Group IV, an election must be made to pharmaceutical compositions comprising nucleic acids, amino acids, or anitbodies.

Group II is elected, with traverse. Additionally, the amino acid sequence of SEQ ID NO: 70,493 is elected, with traverse. And, as will be shown below, new claims 74-85 should be joined with the claims of Groups I, II, IV, VIII and IX, such that applicants elect, with traverse, claims 1-4, 8-58, 65, 66 and 74-85, such that applicants additionally elect SEQ ID NO: 21,882 as the nucleic acid sequence which encodes the elected amino acid sequence. Should this rejoinder be allowed, Applicants will cancel all remaining claims, and will amend the elected claims to recite only the elected subject matter. To further this objective, new claims 74-85 have been added to encompass the subject matter of the rejoined Groups, as limited to the elected species.

The Office Action states that the inventions are distinct because "[t]he inventions of Groups [I, IV(nucleic acid compositions), and V-VII); Groups [II, IV(amino acid compsitions), and VIII-X); Groups [III and IV(antibody compsotions)]; and XI are independent inventions because they are directed to different chemical types or invention types regarding the critical limitations therein." Office Action at 6. The Office Action continues that while it "is acknowledged that various processing steps may cause a polypeptide of Groups II etc. to be directed at to its synthesis by a polynucleotide ...the completely separate chemical types of the inventions of the nucleic acid polypeptide, antibody and data Groups supports the undue search burden if both were examined together." Office Action at 6.

The MPEP lists two criteria for a proper restriction requirement. First, the invention must be independent or distinct. MPEP § 803. Second, searching the additional invention must constitute an undue burden on the examiner if restriction is not required. *Id.* The MPEP directs the examiner to search and examine an entire application "[i]f the search and examination of an entire application can be made without serious burden, ... even though it includes claims to distinct or independent inventions." *Id.*

It is respectfully submitted that the claims of the present invention, Groups I, II, IV, VIII, and IX should be searched together. The claims of Group I relate to the nucleic acid sequence

which codes for the amino acid sequence of Group II. Group IV is drawn to pharmaceutical compositions comprising the amino acid sequence of Group II, and Groups VIII and IX are drawn to both detecting variant amino acid sequences and detecting the level of an amino acid sequence. As Groups I, II, IV, VIII, and IX all relate to amino acid sequences and the nucleic acid sequences which encode them, the search is likely to be coextensive. On the basis of this reason alone, the restriction requirement is improper and should be withdrawn.

For example, as to Groups I and III, attention is respectfully directed to Example 17 of Annex B Part 2 of the PCT Administrative Instructions (Appendix AI of the MPEP) which provides:

> Claim 1: Protein X
> Claim 2: DNA sequence encoding protein X.
> Expression of the DNA sequence in a host results in the production of a protein which is determined by the DNA sequence. The protein and the DNA sequence exhibit corresponding special technical features. Unity between claims 1 and 2 is accepted.

Clearly, there is unity of invention between Groups I and II and the search and examination of Groups I and II would be co-extensive such that these Groups should be rejoined and searched and examined in this one application.

Similarly, as to Groups II and IV, attention is respectfully directed to Example 16 of Annex B Part 2 of the PCT Administrative Instructions which provides:

> Claim 1 Compound A.
> Claim 2 An insecticide composition comprising compound A and a carrier.
> Unity exists between claims 1 and 2. The special technical feature common to all the claims is compound A.

Clearly, there is unity of invention between Groups II and IV, and the search and examination of Groups I and II would be co-extensive such that these Groups should be rejoined and searched and examined in this one application.

Additionally, the Examiner's attention is respectfully drawn to MPEP §808.02 which states, "even with patently distinct inventions, restriction is not (emphasis added) required unless one of the following reasons appears:

> Separate classification;
> Separate status in the art; or
> Different field of search[.]"

Indeed, Groups II and IV are classified in class 530, subclass 300, and Groups VIII and IX are classified in class 435, subclass 7.1. Therefore, the claims of Groups I, II, and IV should be rejoined, as should the claims of Groups VIII and IX. And, as shown previously, Groups VIII and IX also relate to amino acid sequences, such that the elected Group should encompass the claims of Groups I, II, IV, VIII and IX, and should encompass new claims 74-85.

In summary, enforcing the present restriction requirement would result in inefficiencies and unnecessary expenditures by both the Applicants and the PTO, as well as extreme prejudice to Applicants (particularly in view of GATT, whereby a shortened patent term may result in any divisional applications filed). Restriction has not been shown to be proper, especially since it has been shown that the search and examination of each Group would be likely to be co-extensive and, in any event, would involve such interrelated art that the search and examination of the entire application can be made without undue burden on the Examiner. All of the preceding, therefore, mitigate against restriction.

Thus, it is respectfully requested that the restriction requirement be reconsidered and withdrawn in its entirety.

III. RESPONSE TO THE SEQUENCE LISTING REQUIREMENTS

The July 29, 2002 Office Action also contained a requirement for compliance with the rules governing sequence listing disclosures, as set forth in 37 C.F.R. §1.821(a)(1) and (a)(2).

Applicants submit that a sequence listing has been submitted to the address provided by the Patent Office, such that electronic media are not destroyed during the decontamination processing of the mail addressed to offices with a 22032 zip code.

Consequently, reconsideration and withdrawal of the objection is respectfully requested.

OIPE
OCT 29 2002
PATENT & TRADEMARK OFFICE
JC22

CONCLUSION

In view of the amendments and remarks herein, reconsideration and withdrawal of the restriction requirement are requested. Early and favorable consideration of the application on the merits, and Allowance of the application are earnestly solicited.

Respectfully submitted,

FROMMER LAWRENCE & HAUG LLP
Attorney for Applicants

By: _____

Thomas J. Kowalski
Reg. No. 32,147
Angela M. Nigro
Reg. No. 51,107
(212) 588-0800

RECEIVED
NOV 01 2002
TECH CENTER 1600/2900